Interactive avatar boosts performance of children with ADHD

September 26 2019

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A new study has shown that an interactive avatar, which gives both instructions and feedback on the attention of the learner, can improve the performance of ADHD children on a complex problem-solving task.

Researchers concluded that the presence of a virtual avatar providing instruction and feedback can enhance the attention of ADHD children and boost their performance on dynamic measures of intelligence, as reported in an article published in *Cyberpsychology, Behavior, and Social Networking*.

The article entitled "Interactive Avatar Boosts the Performances of Children with ADHD in Dynamic Measures of Intelligence" was coauthored by Rosa Fabio, Tindara Capri, Giancarlo Iannizzotto, and Andrea Nucita, University of Messina, Italy, and Nasrin Mohammadhasani, Kharazmi University, Tehran, Iran. Avatars are virtual characters used in online learning environments that have human-like gestures, speech, and behaviors. The researchers showed that the absence of an avatar or the presence of an avatar that only provided instructions did not significantly boost performance among children with ADHD in the dynamic intelligence test. In these tests, the children are given complex problems to solve and gradual assistance to help determine the solution to the problem. Measures of performance depend on how much aid the learner needs to solve the problem.

"Results from this study may assist developers to design more useful educational software, as well as provide guidance for educators on the value avatars might bring to classroom and online training and educational environments," says Editor-in-Chief Brenda K. Wiederhold, Ph.D., MBA, BCB, BCN, Interactive Media Institute, San Diego, California and Virtual Reality Medical Institute, Brussels, Belgium.

More information: Rosa Angela Fabio et al, Interactive Avatar Boosts the Performances of Children with Attention Deficit Hyperactivity Disorder in Dynamic Measures of Intelligence, *Cyberpsychology, Behavior, and Social Networking* (2019). DOI: 10.1089/cyber.2018.0711

Provided by Mary Ann Liebert, Inc

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https://medicalxpress.com/news/2019-09-interactive-avatar-boosts-children-adhd.html